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## TELECOPY ORDER FORM

TO: Sally Margus/EPA OFFICE: (206) 553-0165 FAX#:   
FROM: J Floyd Damron  
DATE: 2/5/91  
EMPLOYEE#: 3228  
JOB#: ANC26264.A1  
NUMBER OF PAGES (INCLUDING COVER): 3  
RETURN ORIGINAL: YES X NO

CH2M HILL/ANC  
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## ADDITIONAL INSTRUCTIONS/COMMENTS:

Sally - Attached is memo requested by Doug  
Redburn. If AWWU is allowed to  
use Cook Inlet dissolved metals, no  
site specific stds are needed. Hopefully  
this will resolve the issue. Is your letter to  
ADEC complete yet?

## M E M O R A N D U M

CH2M HILL

TO: Douglas R. Redburn/ADEC

COPIES: Sally Marquis/EPA  
Kris Warren/AWWU

FROM: Floyd J. Damron/ANC *FJD*

DATE: February 5, 1991

SUBJECT: Point Woronzof WWTP NPDES/301(h) Renewal

PROJECT: ANC26264.A1

Per your request we have reviewed the available receiving water dissolved metals data for the six metals that have been considered for site specific criteria (Cr+6, Cu, Hg, Ni, Pb, and Zn). Receiving water samples were taken in February and August, 1990, and analyzed for dissolved metal concentrations. Using this data we calculated the resulting metal concentrations at the edge of the proposed ZID (180:1 dilution). For this calculation we used the highest receiving water dissolved metal concentration and the highest effluent metal concentration for each of the six metals. In all cases, the proposed ZID boundary metal concentration is calculated to be lower than receiving water standards. This is shown on the attached figure.

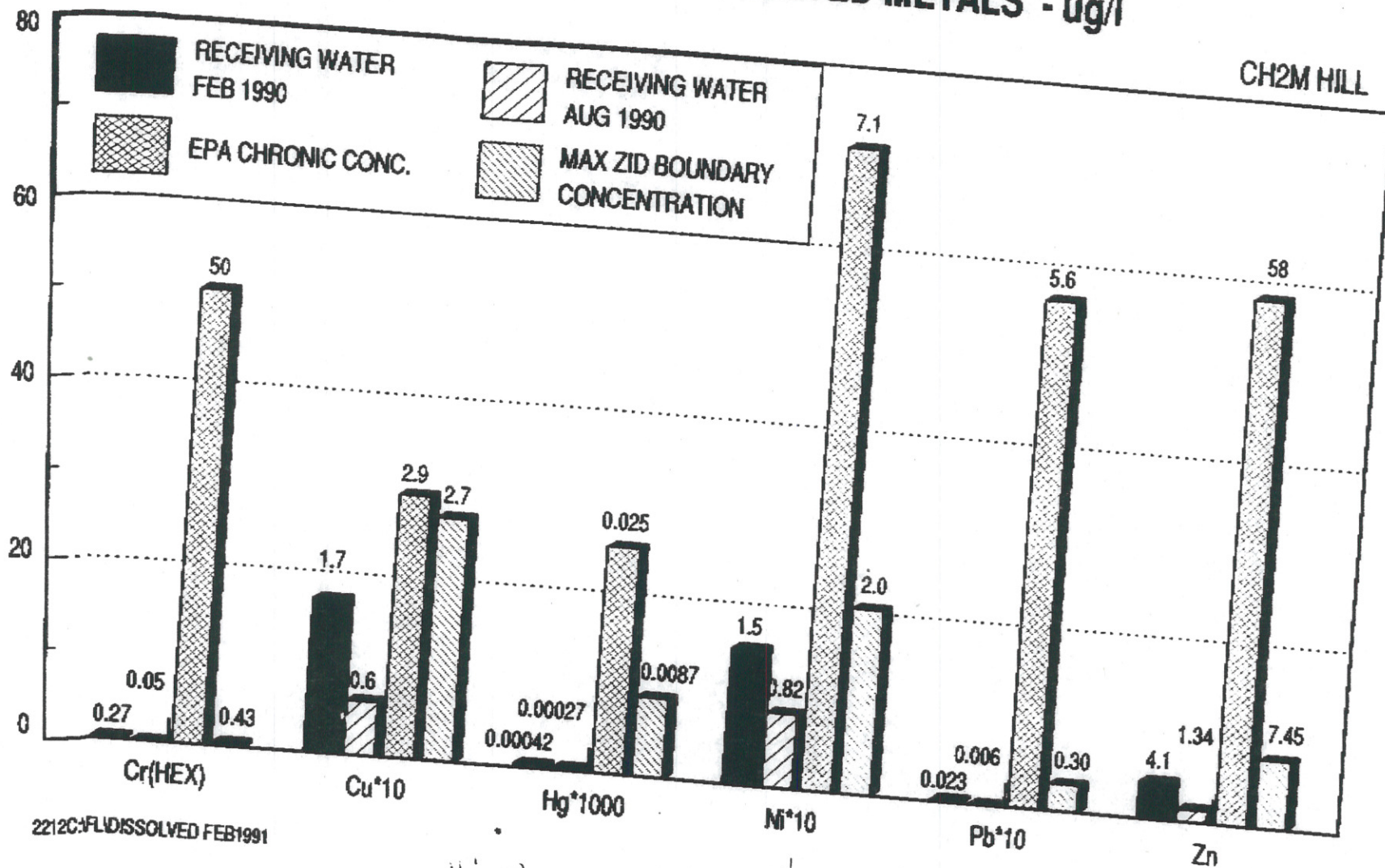
The proposed ZID boundary concentration of copper came the closest to the receiving water standard. 2.6 ug/l is 93 percent of the 2.9 ug/l standard. This resulted from an effluent sample with 180 ug/l of copper, an unusually high effluent concentration for this facility. Even with this high concentration, the standard would not have been exceeded.

The following table contains data used for the figure:

POINT WORONZOF WWTP NPDES/301(h) RENEWAL RECEIVING WATER DISSOLVED METALS - ug/l - 180:1 DILUTION				
METAL	MAX EFFLUENT CONCENTRAT.	MAX BACKGRD CONCENTRAT.	RECEIVING WATER STD.	MAX ZID BOUNDARY CONC.
Cr+6	30	0.27	50	0.43
Cu	180	1.7	2.9	2.7
Hg	1.5	0.00042	0.025	0.0087
Ni	100	1.5	7.1	2.0
Pb	50	0.023	5.6	0.30
Zn	610	4.1	58	7.5



# POINT WORONZOF WWTP 301(h) RENEWAL RECEIVING WATER DISSOLVED METALS - ug/l



#s shown are accurate  
for plotting purposes, the multiplied numbers